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The
**NATIONAL ASSOCIATION
of CORPORATION SCHOOLS**

Bulletin

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Volume II

September, 1915

Executive Committee Outlines a
Constructive Program

Illinois New Educational Law

Machinists' Apprentice Course of the
Boston & Maine Railroad

Training System of the Pennsylvania R. R.

By J. W. L. HALE, Supervisor Apprentice Schools

A Vast Educational Project Planned for
Delaware

Education in the United States
Annual Report Commissioner of Education

**PUBLISHED BY ORDER OF THE
EXECUTIVE COMMITTEE**

The National Association of Corporation Schools

Headquarters, Irving Place and 15th Street, New York City

Objects

Corporations are realizing more and more the importance of education in the efficient management of their business. The Company school has been sufficiently tried out as a method of increasing efficiency to warrant its continuance as an industrial factor.

The National Association of Corporation Schools aims to render new corporation schools successful from the start by warning them against the pitfalls into which others have fallen, and to provide a forum where corporation school officers may interchange experiences. The control is vested entirely in the member corporations, thus admitting only so much of theory and extraneous activities as the corporations themselves feel will be beneficial and will return dividends on their investment in time and membership fees.

A central office is maintained where information is gathered, arranged and classified regarding every phase of industrial education. This is available to all corporations, companies, firms or individuals who now maintain or desire to institute educational courses upon becoming members of the Association.

Functions

The functions of the Association are threefold: to develop the efficiency of the individual employe; to increase efficiency in industry; to have the courses in established educational institutions modified to meet more fully the needs of industry.

Membership

From the Constitution—Article III.

SECTION 1.—Members shall be divided into three classes: Class A (Company Members) Class B (Members), Class C (Associate Members).

SECTION 2.—Class A members shall be commercial, industrial, transportation or governmental organizations, whether under corporation, firm or individual ownership, which now are or may be interested in the education of their employes. They shall be entitled, through their properly accredited representatives, to attend all meetings of the Association, to vote and to hold office.

SECTION 3.—Class B members shall be officers, managers or instructors of schools conducted by corporations that are Class A members. They shall be entitled to hold office and attend all general meetings of the Association.

SECTION 4.—Class C members shall be those not eligible for membership in Class A or Class B who are in sympathy with the objects of the Association.

Dues

From the Constitution—Article VII.

SECTION 1.—The annual dues of Class A members shall be \$50.00.

SECTION 2.—The annual dues of Class B members shall be \$5.00 and the annual dues of Class C members shall be \$10.00.

SECTION 3.—All dues shall be payable in advance and shall cover the calendar year. Any members in arrears for three months shall be dropped by the Executive Committee unless in its judgment sufficient reasons exist for continuing members on the roll.

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The National Association of Corporation Schools

Bulletin

Published by Order of the Executive Committee
Edited by F. C. Henderschott, Executive Secretary

25 Cents a Copy

\$2.00 For a Year

Volume II

September, 1915

No. 9

THE EFFECT OF EDUCATIONAL TRAINING ON COMMERCE

There is a tendency in several of the States, notably Massachusetts, Wisconsin, Indiana, New York and New Jersey, to carry education to the people. This plan is not a new one. It is seen in the remarkable growth and work of the university extension in connection with British universities.

In 1850 the first university commission was appointed, and by 1867, largely through the pioneering of Professor James Stuart of Cambridge, this type of extension of education of the highest type to students who are unable to become members of the university itself, was a settled thing.

The call for this kind of training came first in England from those interested in the education of women, and next from skilled artisans. Official recognition of this extra-mural teaching came in 1873, at the University of Cambridge, and Oxford followed, giving its formal sanction to the work in 1877. At present these two universities carry their instruction to nearly 300 towns, offering 250 courses each year, or not far from 2,000 lectures delivered to audiences which average about 30,000 people.

This example now is followed by virtually all of the larger universities of Great Britain, and the close co-operation with the local bodies in various parts of the countries have done much to destroy the traditional odium of "town and gown," existing between the academic and artisan classes of the empire.

When the present war is finally terminated the industries of the United States will be confronted with competition from abroad much more strenuous in character than has been experienced in the past. Russia, England, France, Austria and Germany are applying the most advanced educational methods in the training of their workmen. The corporation school movement in the United States is doing much to counteract the foreign increase in operating and marketing efficiency, but we

must also look to our public schools and to our universities for advice and co-operation.

Although one does not usually connect with Russia the modern advances in carrying education to the masses, anyone who of recent years has traveled in inland Siberia will report rapid progress in reducing the vast illiteracy of the country, through the increasing educational desire of fathers and mothers who cannot read and write themselves, but are determined that their children shall not be thus handicapped.

At the time of the Crimean war, it is said, only one peasant out of every fifty taken into the service could read and write. In 1900 this illiteracy had been reduced to five in every fifty, and at the present time one is told that at least one out of every three peasants can read and write when first joining the army.

This seems indeed an astonishing illiteracy, but everything, especially education, must be considered comparatively, and the foregoing progress points the index finger to the time, not so far distant, when these vast Russian millions will awake through mental training to take their place in the sun.

It must also be remembered that the overwhelming masses of the people of Russia were serfs even within the memory of living men, and that educational progress in this land as understood elsewhere, can only be considered as having begun 30 or 40 years ago. The very massiveness of the country, moreover, can only be imagined, never fully grasped, until one has traveled across it and through it; and when it is considered that the people are now as never before awake to their need, these great slow but steady and ever continuous mass movements of the consolidated Russian Slav are full of meaning for the future.

NEW ORLEANS AWAKENS TO ITS OPPORTUNITY

Several years ago there resided in New Orleans a man by the name of Isaac Delgado. This man possessed the ability to look far into the future and discern educational requirements not at that time apparent to the general public. Mr. Delgado being a man of means, provided in his will a large endowment for an industrial school serving the community of New Orleans. The endowment, however, has remained idle for the reason that the school has not been built and proper steps have not been taken to carry out the intention of the founder of the fund.

The new impetus to industrial education throughout our country, however, caused the proper authorities in New Orleans

to assign to Dr. D. S. Hill the task of making a survey which has just been completed. The survey covered a period of twenty months and Dr. Hill has made some interesting recommendations.

The third and final part of the report is made up of studies of local manufacturing plants and mechanical industries, and recommendations for the school.

The occupations studied are grouped under metal manufactures, power, light and heating plants, electrical construction, including telephone and telegraph, lumber, manufactures, building trades, printing and publishing trades, and a group of miscellaneous local industries. The possibility of co-operating with the United States naval authorities in training boys for naval mechanics is discussed. Occupations related to sea-food culture, to scientific agriculture, horticulture and dairying, are examined.

Dr. Hill found the labor unions not only willing but eager to co-operate, and secured much valuable data from both employers and employees.

The last five sections of the report deal with plans for the school itself—its course of study, its site, architectural features, machinery, equipment, finance, organization and control.

The New Orleans *Item* voices the advanced opinion of this progressive southern city in a lengthy editorial from which we extract the following definite recommendation:

"The Commission Council should study that report; publish that report; and then proceed either to act upon it or have it checked and amended speedily by other experts; and thus get promptly to the task of BUILDING THE SCHOOL AND SETTING IT IN OPERATION."

Reviewing the establishment of the fund and what has happened since that time the *Item* says:

"For a long term of years procrastination has deprived the young womanhood of New Orleans, Louisiana, and the whole South of great benefits that would have been available if the full wishes of the patroness of Sophie Newcomb College had been carried out.

"Half a generation has gone by with large funds still unexpended, and the institution still cramped and hindered in an outgrown and antiquated establishment.

"New Orleans does not want another such experience.

"The need for such an institution as the Delgado School could and should be made, is very great here in New Orleans. Its establishment would fit perfectly into the great scheme of

constructive and remedial endeavor that has been set up and set going hereabouts to build this community into a condition of greatest power and efficiency."

MOST TRUANTS ARE FEEBLE-MINDED

Miss Elizabeth Irwin, field worker of the Public Educational Association of New York City, after investigating 103 cases of boys and girls on the west side of New York City and 27 boys on the east side of New York City, who are truants, has found that almost half of them are mental defectives. Miss Irwin has further found, through her survey, that almost half of the children surveyed ought to have been put in classes for sub-normal children and practically without exception these children have no idea about what they are going to do when they leave school and go to work.

The information gained by Miss Irwin has a direct bearing on the Vocational Guidance movement. There are those who have given close attention to a study of this problem covering a period of several years who have reached the conclusion that the percentage of boys and girls, perhaps so large as from thirty to forty per cent of the whole of those in our schools will not excel in any line of work, will not do any class of work unusually well and will not do much more work than they are compelled to do. In other words, in developing vocational guidance account must be taken of the fact that at least a respectable percentage of humanity do not possess genius or unusual qualities.

TRYING OUT THE GARY SYSTEM IN PUBLIC SCHOOLS

At this writing what is known as the "Gary System" promises to in a large measure revolutionize the public school systems of our country. The "Gary System" was originated by Mr. William Wirt, superintendent of schools of Gary, Indiana. It is not a new plan as Mr. Wirt has been developing it for several years. The system involves, however, many of the perplexing problems of public education. Under this system the school day is lengthened about one hour or provides for a school day of about three hundred and eighty minutes exclusive of the luncheon hour. Academic work takes two hundred and

twenty minutes, while eighty minutes are given to drawing, science and shop work, forty minutes to auditorium exercises and forty minutes to gymnasium and play. The work is alternated so that only part of the class rooms are in use for academic work at any one time. A certain number of class rooms are thus made available and may be turned into shops, laboratories and studios. Under this system it is possible to have two complete schools housed in the same building, each with its set of teachers. While one-half the school is at work in the class rooms the other half is in the shops and laboratories. This plan promises to do away with the part time arrangement made necessary in the larger cities by reason of not having sufficient school houses to accommodate all of the children of school age.

The plan does much more. It enables an extension of school facilities and makes it possible, through proper regulation and effort on the part of school boards, to keep every child of school age not only in the schools but happy in their work. For example, the school engineer does not chase a boy out of the engine room to which he may have been attracted, on the contrary, the engineer, like all workmen attached to a school operated on the Gary plan, is a teacher. He proceeds to tell the boy anything he wants to know about heating, lighting or ventilating machinery.

By the time school children have passed through the Gary system for a few years they have become familiar with many manufacturing processes and many handicrafts. They have worked in the school office, marketed for the school kitchen, and kept books in the school lunch room. They have been trained theoretically and practically. It is now generally admitted that children of fourteen to sixteen cannot choose with intelligence or insight the work they are best fitted to do, but through the practical training which is given under the Gary plan the boy and the girl are enabled, through actual experience, to in some degree at least make a choice of vocation.

Mr. Wirt has been in New York City during the past year instituting the Gary system in the New York schools. The Board of Education of New York has voted in excess of a million and a half dollars to install the Gary plan in fourteen schools in the Bronx Borough. It is believed that ultimately the Gary system will be installed in all of the schools of Greater New York. And from Chicago and Newark and St. Louis and many other cities comes the question asked by the press of those cities: "Why

not install the Gary system in our town?" The system has wonderful possibilities, and at the present time the indications are that ultimately the public school system of the entire United States will be reorganized in part or in whole to conform with the Gary system.

A COMPARISON AND EDUCATIONAL TENDENCIES

Reverting once again to the latest available figures, those issued by the Government's Bureau of Education, for 1912 we find that only about 4 per cent of the adult male population of the United States has received any high school education and only about 2 per cent any academic education. Figures for the female population are not available, but according to best authorities they are not materially different, being a little higher for the high school and a little lower for the colleges.

Following the investigation further we find that there are only about 200,000 in the colleges and universities of the United States, whereas there are six million of the age for academic training. In round numbers, less than 4 per cent of those of the academic age are actually being trained in the colleges and universities of the United States. Only from fifteen to twenty per cent of the children of this country graduate from the grammar schools. Many drop out during the fourth year term and the mortality in education continues during the fifth, sixth and seventh year terms.

Dark as the picture is, there is much ground for optimism. Industrial and agricultural education is increasing rapidly and yet not so rapidly as might be desired when we make a comparison with other nations.

Mr. E. G. Cooley, as the result of an exceedingly intelligent and helpful survey of vocational education in Europe, finds that there are now 718 agricultural schools, some of them highly specialized, in Prussia alone, with 14,475 pupils in attendance, against sixty-seven schools in 1875, and only 3,721 pupils in 1880.

In addition, there are now 5,349 country continuation schools with an attendance of 56,000.

"In other words, while the number of schools has multiplied by more than ten within the last twenty-nine years, and the number of pupils by four within the last twenty-four years, the ratio of attendance between the higher schools and the elementary schools has changed so that instead of much less than half of the total number in the elementary agricultural schools, now much more than half can be found there."

In all the other German States there are about 237 agricultural schools of different sorts, "making the total for all Germany not far short of 1,000. Can we conceive of such a change of attitude in our country, that, in addition to its present educational system, it should possess 15,000 schools, about 300 to a State, for the special purpose of teaching agriculture and especially the elements of agriculture, to those who chiefly need such training—small farmers?"

Beginning with farm schools with two-year courses, experience has taught Germany that the way to reach the mass of her agricultural population is by continuation schools such as she has for her city workers, with the exception that her agricultural continuation schools are open for boys from November 1st to April 1st, when farm work is lightest, and for girls in the summer time. The teacher teaches the science and art in the school, and through the summer months is an itinerant expert, going from farm to farm.

"The most striking fact in the history of German agricultural education since 1876 is the growth in numbers and popularity of the winter agricultural schools. This is shown in several ways, for example, by a mere comparison of numbers:

	1876	1914
Farming schools	25	12
Winter agricultural schools.....	8	229

"In total attendance the farming schools have increased only two-thirds again beyond what they had in 1876, while the pupils at the winter schools have been multiplied by forty-four."

These winter schools of agriculture "are by far the most important feature of agricultural education throughout all Germany, because:

"(1) They are open only in winter when farm boys can be best spared.

"(2) They are so numerous that the boys need not go far from home.

"(3) They are cheap.

"(4) They are in charge of itinerant teachers whose advice is of the greatest benefit to the small farmers in cases where an estate owner would hire the service of an expert.

"It is by educating the small farmers and encouraging them to remain in the country and develop all the resources of the country that the life of a nation is maintained and prolonged."

Commenting on the survey made by Mr. Cooley, *American*

Industries, the official organ of the National Association of Manufacturers, says:

"Mr. Cooley's statements regarding agricultural education show that Germany pursues the same course with the agricultural population as with the workers—people in her cities. She brings education to the people in their occupations and while they work. She ties together in both cases the school of life and the life of school and marks, in the clearest possible way, by generations of successful experience, the course that any nation must take that has a fair regard for its working people and its own national happiness and prosperity."

However, there is comfort in the knowledge that we of the United States have realized our problem. The introduction of the "Gary plan" into our public schools, the continuation school movement best exemplified in Wisconsin, the development of the corporation school and the tendency of the universities to enlarge and extend their industrial and agricultural courses is convincing evidence that the trend of American education is in the right direction.

SUMMER SCHOOLS IN THE UNITED STATES

This summer more than 700 different summer schools were in session in the United States, with an attendance of not less than 200,000 students, says the *Christian Science Monitor*. These schools are increasing greatly in number each season and the increase in attendance in a recent year over that of the preceding season was 39,071. While the great universities are the leaders in this vast enterprise of summer education, the plan has been utilized by a wide circle of organizations, representing religious, sociological, political and artistic bodies and boys' camps, and institutions for physical culture, while almost every type of industrial training for men and a diverse variety of schools for women speak for the acceptability of the summer educational idea in America.

It has become a vast national university for the months of July and August, the average length of these schools being slightly more than seven weeks, and only about twenty of the schools usually reporting sessions of less than four weeks. The widely popular and comprehensive character of the curriculum in such centers is indicated by the topics presented at the Eastern Kentucky State Normal at Richmond. Here are offered pedagogy, child study, the history, philosophy and practice of

education; educational problems in Kentucky, primary methods, special methods, drawing and art, music, manual training, domestic science; physical culture, athletics, gymnasium, nature study, horticulture, agriculture, biology, geography, physics, chemistry, English, Bible, Latin, German, French, history, economics, sociology, mathematics, hand work and library methods.

A practical feature of these remarkably diverse and complete systems of courses lies in the fact that usually a place can be found in the school for nearly every type of student regardless of the amount or quality of his previous preparation. Thus there is an adjunct of inestimable value to the regular university and college training, which by its attractiveness and growing necessity for large success and leadership, has been the chief incentive to the arousal of this sectional summer education.

BUSINESS MEN AND EDUCATORS GETTING TOGETHER

Prepare for Educational Campaign in Interests of Local Manufacturers of Newark, N. J.

The Board of Trade's special committee on vocational training and industries of Newark, N. J., at a meeting recently, adopted a list of objects and practically decided upon a monster mass meeting and banquet, to be attended by something like a thousand persons and to be held this fall.

The special committee increased its objects to four. They clearly explain the reason for the committee's existence and the ends it is attempting to reach. The objects are as follows:

1—To enlist the interest and service of the men conducting our industries to assist the Newark Board of Education in bringing about a broader scheme of vocational training, toward which they are bending their efforts.

2—To enable the industries of our city, as a result of this co-operation, to receive from our schools boys and girls better equipped for industrial pursuits.

3—To create a better public understanding in regard to the objects and purposes of vocational and industrial activities in our public schools.

4—To demonstrate the value of a closer contact between the manufacturers of our city with the public schools, to the end that better-equipped boys and girls may be available for employment in our various industries.

NEW YORK TURNS PUPILS FROM SCHOOLS

Vacation Courses Take Care of Only a Part of Applicants— Many Turned Away from Opportunity Classes

(Rheta Childe Dorr in the Evening Mail)

Although the announcement that there would be industrial classes in the summer schools was made weeks ago, the fact seemed difficult for many to realize. The office of District Superintendent Stitt, supervisor of vacation schools and playgrounds, was fairly haunted by anxious applicants for admission to the classes.

"Where can I attend a millinery class?" "Is there going to be an advanced sewing class in my neighborhood?" "My little brother wants to learn to make baskets." It is really pitiful to see the disappointment with which the children learn that they can't have any of these things this year, because the richest city in the country is too poor to care for its children all the year.

If these children are disappointed, what can be said of the ambitious ones who have looked forward for months to the opportunity classes in the summer schools? Many children who, through illness, poverty or other causes, fall behind in their school work or fail of promotion, have in other years made up their deficiencies in the summer months, and it is a matter of record that they rarely fall behind a second time.

The opportunity classes were attended also by bright children who were able, with a few weeks' extra school work, to skip a grade, thus reaching high school a year earlier than usual. Still, a third class of children were those who aspired to working papers, but who had, for some reason, failed to attend school the required number of days during the school year.

Thousands Turned Away

This year the Board of Education was able to provide for less than half the number of opportunity classes maintained last year. The number of applicants was much larger than usual, and the result has been that something like 3,000 children have had to be denied admission to the classes.

Nearly eight hundred children who failed of promotion this June had to be denied a chance to make up their deficiencies. Over a thousand bright children, anxious to skip a grade, were turned away. Nearly a hundred foreign-born children were denied admission to English classes; 7,805 pupils have been admitted to the classes against the 14,338 who were enrolled last year.

EXECUTIVE COMMITTEE OUTLINES A CONSTRUCTIVE PROGRAM

SUB-COMMITTEES ASKED TO CONFINE THEIR ACTIVITIES TO SOLVING PROBLEMS OF IMMEDIATE IMPORTANCE IN INDUSTRIAL TRAINING

The Executive Committee of The National Association of Corporation Schools has outlined a definite program covering the activities of our Association prior to the fourth annual convention to be held in Pittsburgh.

In carrying out the provisions of this program the Executive Committee forwarded to the Chairman of each of the sub-committees a memorandum of instructions, the memorandum being as follows:

Memorandum of Instructions

The Executive Committee at a meeting in New York City on July 7th issued the following specific instructions to the Chairmen of the sub-committees. The instructions are intended as a guide to the sub-committees in making their investigations and preparing their reports to be submitted to the fourth annual convention of our Association to be held in Pittsburgh, May 30th, 31st, June 1st and 2nd, 1916.

Trade Apprenticeship Schools

It is recommended that the Committee on Trade Apprenticeship Schools take the information contained in the last report of this Committee together with such other data as is required and study the subjects of mathematics (including shop arithmetic, algebra, etc.) and English, basing the study upon the requirements of an eighth grade student in the public schools and carrying the recommendations to the point of shop divergence required by the individual shop practice, making specific recommendations on the syllabi, division of hours of work and training, textbooks, etc.

Special Training Schools

This Committee to study the conditions in the industries represented and ascertain:

First—Why these special training schools were established

Second—In what particular do their courses differ from the usual apprenticeship schools

Third—At what point, if any, does the special train-

ing depart from the general training which could be applied outside of these conditions.

Accounting and Office Work Schools

Assuming that the last report of this Committee has formed a part of a syllabus, extend your syllabus as suggested by Dr. Dublin, page 5, volume I, number 4, of "Industrial Education," the convention daily, published at Worcester. Also add any syllabus covering other specific office work and accounting duties and detail a typical course covering all subjects embraced in office work (office work schools should include classes for the training of correspondents) and elementary subjects in accounting, and quote typical textbooks.

Advertising, Selling and Distribution

Prepare detailed syllabi covering courses required to train salesmen, from the viewpoint of industry, including the necessary information on advertising and distribution.

Retail Salesmanship

Ask the Committee to study the general status of the retail salesworker at the time of entering industry and consequently the general educational courses which will be required, before specializing, giving details, syllabi, etc., suitable for retail salesworkers.

Public Education

This Committee should make a study as to the extent to which educators, identified with the industries, are at the present time actively co-operating with the public schools in these two ways:

In the First Place—To what extent are they teaching in the public schools?

In the Second Place—To what extent are the school teachers in the public schools visiting corporations for the purpose of learning corporation needs along educational lines?

That the Committee further study:

First—What is known as the co-operative plan—in which high school students alternate weekly at school and at work in some industry, office or store.

Second—Continuation instruction to employes in public school branches in corporation schools.

Third—Vocational Training—Preparing employes in the public school class room for the work of the various industries.

NOTE—Add to number one. Co-operation—to what extent the teachers in the public schools are going into the industries with the students during the time they are spending in industrial study.

NOTE—Ascertain, where possible, what arrangements have

been made between corporations and public schools for corporations to take students from public schools, either grammar or high schools, at their graduation directly into the industries.

Committee on Safety and Health

Experience shows only a minority of accidents which occur in industry are preventable through the installation of mechanical means, the posting of signs, etc. As a majority of accidents which occur in industry are traceable to the individual equation and can be prevented only through study and by the education of the individual along safety and health lines, this Committee is asked to direct its energies, as far as possible, to a study of these subjects, and to outlining plans and to offer recommendations as to how educational methods may be more fully applied to insure safety and health of employees.

Allied Institutions

Mr. Roosevelt, Chairman, to submit plan to the Executive Committee.

Employment Plans

The Committee is asked to take the report of the last Committee as a basis, digest this report and present recommendations, particularly in reference to the advisability of an Employment Bureau, also as to the functions of such a Bureau, its organization and the general routine to be followed in handling the men for employment, with additional reference to methods of promotion and discharge. This Committee should pay special attention to the advisability of physical examinations with each class of workers at the time of employment and of a continuance of these examinations, recommending specific details.

Vocational Guidance

First—To go into the question of the extent to which Vocational Guidance is advisable and vocational training necessary before the worker enters industry.

Second—To suggest a practical plan for vocational guidance in industry—by a study of the worker as to his capacity and by trial in possibly more than one place.

Codification Committee

Code the subjects which are generally used in all branches of schools that members may be operating.

Code as to the syllabi, for instance, hours of work.

Code as to the industry—character of work, etc., how many courses are given on company time.

CODE

First—According to subjects.

Second—According to syllabi.

Third—According to hours of training.

Fourth—According to division of employees' and employers' time.

Fifth—According to industrial sub-division.

Concentrating on Immediate Problems

Our Association has progressed sufficiently far in its work to be able to determine, at least in some degree, what will be of greatest advantage to our members, and the Executive Committee is concentrating on the problems of the moment, realizing that it will require several years to work out and establish a comprehensive and satisfactory system of training for employees of industrial institutions.

Chairmen of the various committees have accepted appointment and are actively at work or arranging dates for Committee meetings and at the October meeting of the Executive Committee the Chairmen of the sub-committees will submit outlines of what their various committees propose to do, conforming, of course, to the program as arranged by the Executive Committee.

This year, for the first time, our Executive Committee ordered the reports of the sub-committees printed in advance of the annual convention, which involved a considerable expense. While the growth of our Association has been satisfactory, owing to the conditions in Europe and the resultant conditions in the United States, growth in membership has not been as rapid as would have been the case under normal conditions. We have, however, at this time a Class "A" membership of seventy-two, which is very gratifying and encouraging to those who are co-operating on the problems of industrial educational and training.

Additional Revenue Required

From every viewpoint it seems desirable that the program as outlined by the Executive Committee should be carried out. That the Executive Committee shall not be hampered, the Policy and Finance Committee has undertaken to raise additional revenue. Mr. Arthur Williams, Chairman of this Committee, recently forwarded a letter to each of the Class "A" members soliciting contributions and stating that approximately \$5,000 additional revenue will be needed to carry on the work during the coming year. A statement of progress and financial requirements accom-

panied Mr. Williams' appeal. The following is taken from this statement:

Our Association was organized in response to the growing necessity for broader and better industrial education. The corporation school has now become a fixture and will continue as a part of the national system of education. Obviously corporations will do only so much educational work on behalf of their employes as will be required to insure a high degree of efficiency in production and in marketing.

The requirements of our Association have been greater than our financial resources. Owing to industrial conditions, due largely to the war in Europe, new memberships have not been secured as rapidly as was anticipated. It has not seemed desirable for our Association to merely mark time until industrial conditions become normal. Through your Executive Committee and the sub-committees the work of our Association has progressed to a point where it now seems possible to, in a large measure at least, standardize courses for corporation schools. The enclosed memorandum of instructions issued by the Executive Committee to the sub-committees will advise you fully as to progress along this line.

It is estimated that there is required for the balance of 1915 additional funds to the amount of approximately \$5,000, these funds to be used for the following purposes:

Publishing bound volumes of proceedings (Worcester convention)	\$2,500.00
Publishing MONTHLY BULLETINS of Association (including postage)	1,385.00
Administration:—	
Salary of Executive Secretary.....	400.00
Printing, postage, etc.....	500.00
Official stenographer (Worcester convention) ..	500.00
Total	\$5,285.00

A vigorous campaign for new members will be conducted, and it is hoped that under normal business conditions the revenue from membership will soon be ample to meet the financial requirements of our Association. Class "A" members are requested to contribute to our immediate needs that the work of our Association be not hampered and that standardized courses, carefully, tested, may be available to all of our members at as early a date as possible. Much progress has already been made.

Some of our members have indicated a willingness to contribute \$200.00, some have contributed \$100.00 and some of our smaller corporate members have indicated a willingness to contribute \$50.00. We now have seventy Class "A" members. If all will contribute as in their judgment may seem appropriate our Association will be in position to prosecute its work vigorously and successfully. Remittances should be made to the

Executive Secretary. Immediate funds are needed. Your Policy and Finance Committee earnestly requests an early response.

Respectfully yours,

GEORGE I. ALDEN, Norton and Norton Grinding Companies,
E. E. BROWN, New York University,
GEORGE B. CORTELYOU, Consolidated Gas Company,
N. C. KINGSBURY, American Telephone & Telegraph Company,
JOHN H. PATTERSON, The National Cash Register Company,
CHARLES P. STEINMETZ, General Electric Company,
HERBERT H. TILY, Strawbridge & Clothier,
ARTHUR WILLIAMS, The New York Edison Company,
Sub-committee of Policy and Finance Committee.

As a result of this appeal the following contributions have been received:

American Telephone & Telegraph Company	\$200.00
Commonwealth Edison Company	100.00
Carnegie Steel Company	100.00
Commonwealth Steel Company	100.00
Consolidated Gas Company of New York	200.00
R. R. Donnelley & Sons Company.....	100.00
Montgomery Ward & Company	85.00
The National Cash Register Company	200.00
Norton & Norton Grinding Companies	100.00
Packard Motor Car Company	100.00
Strawbridge & Clothier	100.00
The Texas Company	100.00
The Trow Press	100.00
Westinghouse Electric & Manufacturing Company ..	100.00
Winchester Repeating Arms Company	50.00
	<hr/>
	\$1,735.00

It is hoped that additional contributions will be forthcoming otherwise it will be necessary to curtail the work which the Executive Committee has planned to have done. It is believed with a return to anything like normal business conditions a sufficient number of industrial institutions will take Class "A" membership which will produce the revenue needed to carry on the work after this year. Interest in the movement for better industrial training is increasing. The United States is today in a position to advance rapidly along industrial lines but our workmen must be properly trained if we, as a nation, are to assume and hold the leading position in the commerce of the world.

NEW MEMBERS

Since the last membership statement appeared in the BULLETIN the following new members have been received:

Class "A"

Robert H. Ingersoll & Brother, 315 Fourth Avenue,
New York CityJ. William Schulze
The Prudential Insurance Company of America,
Newark, N. J.Mr. Fred W. Tasney

Class "B"

Mr. John R. Bentley, Montgomery Ward & Co., Chicago, Ill.
Mr. George J. Gabriel, Montgomery Ward & Co., Kansas
City, Mo.
Mr. R. H. Glassley, Montgomery Ward & Co., Brooklyn, N. Y.

Class "C"

Mr. J. A. Brodhead, Young Men's Christian Association, Wil-
merding, Pa.
Mrs. Lucinda W. Prince, National Retail Dry Goods Association,
33 West 42d Street, New York City.

EVENING SCHOOLS FOR MINNEAPOLIS WORKERS

Algebra, Geometry, and Other Subjects Offered Men who Missed Them in Public Schools

Educational courses arranged attractively and to meet all sorts of needs will be offered in the public schools of Minneapolis next year. There will be, for instance, for the working man who wants algebra, geometry or some other subject that he did not stay in school long enough to get when he was a boy, evening classes in one of the high schools.

The school board will not find it necessary next year to have an industrial high school running, as in the past, because the evening classes in industrial work for men and boys at the Dunwoody school will meet this need, leaving the public schools free to give that academic training that people missed getting in their school days. A high school education can be obtained in the evening classes and all sorts of educational needs that are present to any degree to warrant organizing classes to meet them will be cared for.

Hundreds Thought Ready

Superintendent Spaulding believes there must be hundreds of boys and girls who had to leave the elementary schools to

go to work who would like to get a high school education evenings that would give them credits that would take them to the university. He proposes to establish high school courses in the evenings on a systematic basis that will meet this need, according to the *Minneapolis Tribune*.

Education for every boy and girl and all he or she wants of it will be the aim.

Evening classes in one of the high schools for boys and men employed in department stores will be another innovation.

Great expansion of the commercial work in the high schools for both day and evening classes is Dr. Spaulding's aim. Short courses as well as broader courses in this line to be offered in the high schools are planned. The fact that the Dunwoody school will take care of all day and evening trade classes will leave the public schools free to specialize—on commercial work as pre-vocational training, and continuation education for people employed.

A NEW FIELD FOR EDUCATIONAL EFFORT

To assist in the relief of unemployment and vocational dissatisfaction in the cities of the country, a national agricultural organization was recently formed. It is an extension of the State departments of agriculture and has headquarters at the Labor Temple, in New York City.

A woman is at the head of the Forward-to-the-Land League, as it is called—Mrs. Haviland H Lund. She hopes to establish a series of small farm communities, and has taken the matter up with officials of the Agriculture, Labor and Interior Departments, and the Reclamation Service. Assistant Secretary Vrooman, of the Agricultural Department, is greatly interested in Mrs. Lund's scheme, and has given her valuable assistance.

"The deep human wish for a home and the present conditions of congestion, unemployment and fierce competition are turning the city man's thought toward the country," said Mrs. Lund. "To make the urbanite happy and to supply correct land information and to give lectures and addresses to the prospective farmer are the chief objects of the league.

"You can't put city people into the country without teaching them something about it. So we will conduct classes for the prospective farmers. There is one now in New York City. The Smith labor bill has made possible the county demonstrator, who advises scientifically on farming problems. We also have

an agricultural engineer, who estimates the land and reports on what crops are best for it.

"We already have colonies in North Carolina, Texas, and Alabama, and before long there will be many trains of 'pioneers' leaving for the South and West."

ILLINOIS NEW EDUCATIONAL LAW

Schools of Various Types Proposed—Choice and Adoption would be by Popular Vote—Aim, Statement Says, Not to Interfere with General Schools

A fair hearing for proposed system of vocational education patterned after the systems which have proved successful in many European countries and in Wisconsin, is asked by the Commercial Club of Chicago, in a statement just issued.

The Commercial Club's bill (based upon several years' study in Europe and America by Edwin G. Cooley) as drafted for the General Assembly, reads as follows: It is planned to place direction of vocational and agricultural schools and courses directly under the supervision of a State Board and local boards composed equally of practical men, employers, employees and farmers, instead of leaving them entirely under the present school authorities, and there has been some criticism on the part of school teachers and principals.

The statement issued, however, points out that the bill will make the State Superintendent of Public Instruction and the County and City Superintendents of schools, the odd member of each of these boards holding the balance of power, and asks the public to weigh all the arguments and evidence carefully and decide the question upon a basis of merit and information, and not to be swayed by arguments based upon prejudice.

To Supplement Present Schools

"We have developed," says the statement in effect, "a very good system of elementary schools, of secondary schools (including both the academic and the modern technical high schools) and a system of universities—all of which provide an adequate preparation for life for the favored youth with leisure and interest for advanced work.

"We now must supplement these by another type of school, also based on the training of the elementary school, but which

will undertake to train directly for vocational life the youth who must leave the ordinary school at fourteen."

Would Avoid Conflict

The statement emphasizes that the proposed system of vocational schools would not compete or interfere with the present school system, but should supplement it by providing helpful education under the best possible conditions, offered only to boys and girls over fourteen years of age who have left the public schools as now organized. Such youth are grouped under two heads—those compelled to leave school in order to earn a living, and those more favorably situated but who can be induced to remain in school between the ages of fourteen and eighteen, only if offered practical instruction along vocational lines. Schools and courses to meet all sorts of needs in each of these groups are outlined.

These schools will be introduced into a community only when a majority of the legal voters vote for their establishment.

Each community will be able to introduce whichever type of schools it feels is suited to its special needs.

To avoid interfering with the present system of schools, special local taxes are to be levied for their support and state aid given to each community establishing these schools, in direct proportion to the amount expended in maintaining them.

The State Commission having these schools in charge will be composed of eight persons appointed by the Governor—two employers of labor, two skilled employees, two farmers or practical agricultural experts, one of whom has made a special study of women's work in the fine arts, industry, commerce or the home arts, and one educator.

Local Boards of Control

The local boards of control in cities will be composed of the city superintendent, ex-officio, two employers of labor, and two skilled employees (industrial, commercial, or agricultural), chosen by the general board of education. In country districts the board is to be composed of the county superintendent, ex-officio, and six persons elected by the people of the district.

It is believed by friends of the measure that this arrangement, by recognizing officials and authorities of the general school board, and at the same time providing for selection of practical men for these boards, will give Illinois an efficient system of vocational schools, without interfering with the other schools.

MACHINISTS' APPRENTICE COURSE OF THE BOSTON AND MAINE RAILROAD.

Motive Power Department Rules and Regulations Governing the Employment of Apprentices.

THE BULLETIN is in receipt of memorandum covering the rules and regulations governing employment of apprentices in the Motive Power Department of the Boston and Maine Railroad and also an outline of the Machinists' Apprentice Course. Believing this information will be of value to railroads in general and to manufacturing institutions from the standpoint of apprenticeship courses, we are reproducing the information. Fifty weeks constitutes a year's work and the weeks consist of fifty-three hours each.

1. A regular apprentice is one who has had no previous shop experience and is not a graduate of a technical institution.

2. The age of apprentices when taken into shops must be at least sixteen years for machinists and eighteen years for boilermakers and blacksmiths.

3. Applicant must present a regular practicing physician's certificate to the effect that his general health is good and that he is able to stand physical labor.

4. Applicant shall have obtained at least a grammar school education, being able to read and write and shall fill out an application blank. He shall give evidence of ability to do sums in simple arithmetic, including multiplication and division of numbers of at least six figures and must have a reasonable knowledge of fractions and decimals.

5. A regular apprentice shall serve a term of four (4) years, each consisting of 300 full working days. Lost time of each year shall be made up before advancement. It is required of each apprentice that he devote his entire time, during working hours, faithfully to his duties. Those not observing this rule will be liable to dismissal.

6. Apprentices failing to show an aptitude for their trade or due diligence to their work, will be dismissed from the service during the first year, if possible. Master mechanics and foremen of apprentices will pay particular attention to this matter. Indolence, insubordination, neglect of duty or bad conduct, in or out of the shop, will be considered sufficient cause for dismissal.

7. Instructions to be given in mathematics, mechanical drawing, and shop talks, during shop hours.

Instructions in drawing to cover a period of two years, divided into two classes. Boys in service from six to eighteen months are to form the first class and those in service from eighteen to thirty months are to form the second class.

Instructions in mathematics to begin as soon as boys begin service and to continue until they show a good understanding of the subjects.

Time allowed class work to be about one and one-half hours for drawing, one hour for mathematics, and one hour for shop talks in each week from October to May inclusive. These hours subject to change at the option of the company.

Hours for class work as follows: Mathematics from ten to eleven, shop talks from eleven to twelve, on Tuesday. First class in drawing from one to two-thirty on Thursday. Second class in drawing from one to two-thirty on Friday.

A marking system based on the following items, attendance, workmanship, behavior and industry will be used to determine the record of the apprentice.

Drawing lessons being compulsory, instruments and material should be furnished by the company.

Each apprentice on entering the drawing class may purchase the drawing instruments at cost; or, give a receipt for return of same, in good condition, barring wear, at end of course.

8. Pay for apprentices to be as follows: First year \$1 per day; second year \$1.25 per day; third year \$1.50 per day; fourth year \$2 per day, except at Lyndonville shop where the rates will be 25c per day less.

9. If for any reason the company shall close any shop permanently or discontinue work where an apprentice is employed, the apprenticeship may thereby be terminated unless a transfer to some other shop is arranged at the option of the company.

In case of suspension of work in any shop at any time the wages of apprentice shall cease during such suspension, but the period of apprenticeship shall not be extended by the amount of such suspension.

10. It is the intention of the company to retain in its service all graduated apprentices whose records are satisfactory, although they may be transferred to some shop other than that in which they have learned their trade.

11. At the expiration of the apprenticeship a certificate approved by the proper officer will be issued to the apprentice.

12. Machinists' apprentices will serve in erecting shop about 24 months and receive instructions in setting frames and cylinders, fitting up guides, steam chests, and valves, valve motion, shoes, wedges, and boiler attachments; adjusting connecting rods and setting valves, etc.

Service in general machine shop will be about 24 months with instruction in drilling, tapping, turning, boring, planing, and shaper work, bench work and vise work, fitting and filing, brass work and air brake mechanism.

13. Boilermakers' apprentices will serve: Heating rivets, helping and light steel work, about 18 months. General work about 30 months.

14. Blacksmiths' apprentices will serve: In erecting shop learning parts of locomotives, 3 months. Helping on general work and hammer work about 21 months. General blacksmithing about 24 months.

15. The parents or guardians of a candidate will be required to sign "Minor's Release" papers before the apprenticeship is begun.

Outline of Machinists' Apprentice Course.

Months in
Erecting Machine
Shop Shop

- | | |
|---|---|
| 1 | In Tool Room.—Learning the names, care and use of the common tools and grinding drills; learning the mechanism of pneumatic tools. |
| 3 | On Erecting Floor.—In stripping gang; un-wheeling; removing brake and spring rigging, driving boxes, shoes and wedges, pistons and broken frames. Learning the names and positions of the parts. |
| 1 | On Erecting Floor.—In tender gang; on engine trucks, tender trucks and frames. |
| 7 | On Erecting Floor.—In erecting gang; drilling, reaming and tapping holes; chipping, filing, and fitting boiler fastenings and other parts; removing and putting in steam and exhaust pipes, steam valves and cab fittings; dressing frame jaws and adjusting side and main rods |
| 1 | On Bolt Cutter and Drill Press. |

Months.

- 4 On Lathes.—Squaring nuts, cutting off, centering and turning bolts, making crank pin collars, boring lift shaft boxes, making pins and bushings for valve gear, and making pins, bolts and studs on Turret Lathe.
- 2 On Planers.—Planing guides, shoes and wedges, valves, and valve packing, crossheads and gibs, and other parts.
- 2 On Slotter.—Slotting spring hangers, oil boxes, driving boxes, driving box liners, eccentric keyways, and other parts.
- 1 On Boring Mill.—Making cylinder heads, piston heads and packing, eccentrics and straps, hub liners and boring pump cylinders.
- 2 In Brass Room.—At bench; repairing valves, injectors, lubricators, pops and gauges. At Lathe, making repair parts.
- 1 At Bench.—On link work, reverse levers, throttle levers, crossheads and valves.
- 1 On Rod Work.—Fitting rod brasses for side and main rods; turning and boring rod bushings for side rods.
- 2 On Tool Work.—Making repairs on tools.
- 1 On Milling Machine.—Making rod boxes, driving boxes and rods.
- 3 On Wheel and Axle Work.—Boring truck wheels, turning truck tires, turning driving tires and journals, boring crank pin holes, fitting truck axles, and making driving axles.
- 1 Lining up Shoes and Wedges and fitting Driving Boxes.
- 2 In Air Pump Room.—Making repairs to air pumps, governors, engineer's valves and triple valves.
- 1 In Air Brake Gang.—Making repairs on air brake equipment and air pipes.
- 2 On Guide, Steam Chest and Cylinder Work.—Lining guides, facing valve seats, putting on steam chests, putting up crossheads and pistons, and boring and bushing cylinders.
- 3 Setting up Saddles, Cylinders, and Frames.—Laying out work, and throttle work.

Months.

- 2 Valve Settings.—Removing and applying eccentrics, hanging links and eccentric blades, taking port marks, squaring valves, repairing intercepting valves.
- 2 Running repairs in engine houses.
- 3 On General Work and Taking Charge of Work.

Total of 48 months, divided as follows: 24 months in Machine Shop and 24 months in Erecting Shop.

Note: The Air Brake Co's Instruction Car will be utilized from time to time as opportunity permits.

Outline of Boilermakers' Apprentices Course.

Months

- 1 Heating Rivets.
 - 6 On Flue Job.—Cutting off, welding, swaging and testing flues.
 - 6 Removing and putting flues in boilers and washing out boilers.
 - 12 Working on light sheet steel work, as Ash pans and tank work; holding rivets, helping and learning to do each part of the work, also thickness of stock, size and spacing of holes, and size and length of rivets to use and amounts to allow for heading rivets.
 - 6 On Staybolt Work.—Removing and tapping holes, putting in and driving staybolts.
 - 9 On Boilers.—Rivetted, chipping, caulking, patching, flanging, and laying out work.
 - 3 Running Repairs in engine houses.
- Total, 48 Months.

Outline of Blacksmiths' Apprentices Course.

Months

- 3 In Erecting Shop.—In erecting gang; learning the use and shapes of the parts of engines and how they should be made.
- 3 On Bolt Header, Forging Machine and Bulldozer.
- 6 Helping on Light Fire.
- 6 Helping on Heavy Fire.
- 6 Helping on Tool Fire, with chance to work steel into tools.
- 6 On Light Fire, without helper, getting used to work behind anvil.

Months.

- 6 On light fire, with helper, on light work requiring a helper.
- 9 On fire with helper, on general work.
- 3 On fire with helper, on heavy work.

LIFE PROBLEMS IN SCHOOL

Cube Root to Give Way to Budget Estimates, is Indiana Plan

School children of South Bend, Indiana, no more will have to ponder over cube root, greatest common denominator, Troy weight and the like, if the recommendation of a committee of eight public school principals is accepted. This committee, which reported to Superintendent of Schools L. J. Montgomery yesterday, declared that this work is a waste of time and offers as substitutes such practical tests as the following:

Working out of problems in city government; figuring estimates on city improvements; compilation of budgets and measuring of the city's area.

The committee also recommended that "stage money," check books and cash registers be used in the city schools. The report adds that by the elimination of useless work and the substitution of practical problems—the kind the students will meet in everyday life—greater efficiency can be obtained.

FULL VALUE IN VOCATIONAL TRAINING

(Newark, N. J., News)

In order to realize the full benefits from vocational training in the public schools it is quite desirable that some attention be given to the industries which may be benefited by receiving the pupils trained in the work as well as the opportunities which may be open to the pupils as the result of the training. In line with this idea, Superintendent W. Burton Patrick, of Orange, suggests a survey of the industries of Orange and neighboring towns in order that it may be known what branches should be taught in the Orange schools and where graduates may be placed in positions. With a growing appreciation of the fact that this training is not detrimental to organized industrial bodies it behooves boards of education to provide practical courses of training, and while not ignoring those which appeal especially to pupils, to direct the instruction along such lines as will be most useful and valuable both to the student and to industries. This is the method known as "vocational guidance."

CO-OPERATION ASSISTED BY EDUCATION

This Great Corporation is Extending Its Training System to Provide Essential Knowledge

By J. W. L. Hale,

Supervisor Pennsylvania Railroad Apprentice Schools

(Reproduced from the Mutual Magazine)

Co-operation, rather than competition, is the important factor making for success under modern industrial and social conditions.

Co-operation is based on confidence, and confidence is a prime requisite for efficient co-operation. The benefits of this association to all concerned will come from the results of actions arising through the mutual confidence of all Pennsylvania Railroad employees, of whatever rank, in this wonderfully organized company.

Confidence arises and is maintained through a proper understanding of conditions, social and economic, and through proper education in the needs and requirements of the industry affecting all employees.

There are already proposed and actively at work in our organization, interesting agencies to produce a proper understanding and proper education in the needs of those concerned. The mutually beneficial result of several of these agencies is such that the writer believes they will be of interest to readers of this magazine and to hearty co-operators in this movement for mutual betterment.

The System of Shop Trade Apprenticeship Schools

On February 1, 1910, the Pennsylvania Railroad established, at Altoona, a shop school for the training of apprentices in their respective trades. The specific object of this school was to give essential knowledge of fundamental trade principles, as well as to develop in apprentices a sense of their proper mutual relations and duties.

In this experimental school facilities were provided within the shop enclosure, and apprentices were given four hours of instruction per week during working hours and while under regular pay. The results derived were of sufficient value to warrant the establishment of similar schools at several other points, and the system has since been extended to the Harrisburg, Philadelphia and Wilmington shops. An organization has been

planned for extending these schools to all shops on the lines east where apprentices may be employed.

The number of apprentices receiving this school instruction total approximately 350, and are termed "Regular Apprentices." In addition to the school instruction, all apprentices have definite shop schedules regulating their movement from one department to another. These schedules are arranged to give them the maximum amount of experience and knowledge of the shop operations. The results of the company's apprentice schools have already been apparent in better trained shop men and as available means for placing apprentices in such work as will be for the greatest benefit to all concerned.

The provision of shop school instruction in addition to instruction in the actual trade processes in the shop, has proved an important factor, making for efficient education, confidence and co-operation.

Correspondence Instruction

In addition to the system of apprentice schools, the company began in June, 1913, a course of correspondence instruction in electrical subjects, and made this available for all the employees of the company. This course has included such subjects as elementary mathematics, elementary electricity, primary batteries, principles of direct current, etc. Approximately 8,000 employees have been enrolled and branch offices handling this work has been established in New York, Philadelphia, Altoona and Pittsburgh. Although a small proportion of those enrolled have finished the course, it is felt that all have at least gained some knowledge. This course is the result of putting into action a desire to do as much as possible for the company employees who wish to improve themselves and who, by reason of environment, location, condition or character of employment, have not had the opportunity to learn. This course has also served to encourage and stimulate a desire for self-improvement, and is an important step in the direction of maintaining efficient co-operation.

School of Telegraphy

A School of Telegraphy has been established for some years at Bedford, Pa., and is under the Telegraph Department of the company. Physically able young men between 17 and 25 years of age, having a common school education, are eligible to its classes. The school has an equipment for teaching telegraph

sending and receiving, and also the use of the telephone in connection with railroad work. Included also is instruction on the duties of the station agent, account keeping and the rules of the Transportation Department.

Accounting School

In addition to the activities already stated, the Accounting Department at the Philadelphia offices has a school for the training of clerks. This school comes under the direction of the comptroller of accounts and has proven its worth in securing beneficial conditions.

The Safety First Campaign, the movement to provide sanitary and safe conditions in the shops as well as on the road, and the efforts through various means to bring all employees into closer mutual beneficial relations are such as will continue to grow in the future for betterment and improvement in the interests of all concerned.

PUBLIC SCHOOL INDUSTRIAL TRAINING

(Newark, N. J., Star)

The installation of two new industrial shops in the Ann Street and West Side schools decided upon by the school board calls attention anew to this growing important feature of our school system and shows how school development is along utilitarian lines as well as the academic. It was only five years ago that the system was established with only forty pupils, and then it began to grow. Departments were added and teachers and pupils increased. Last year there were eight classes and one hundred and sixty pupils, and a school building, to cost \$125,000, was authorized. It is noteworthy that children of German parentage exceed those of any other nationality among the pupils, showing the knowledge of their parents of the value of industrial training. More than half of the city's school population take up shop and factory occupations and have no previous mechanical training. The industrial school supplies this need, as the report of the principal shows at least eight thousand of our city school population should have industrial training. In no manner need this system affect the trade unions, since the training is preparatory and will be highly useful in providing competent apprentices in organized trades, while invaluable in all mechanical occupations.

CURTIS COMPANY TO AID 70,000 BOYS

Plan to Provide Vocational Training for Deserving Lads Launched

What was virtually the beginning of a movement to provide vocational training to 70,000 boys in all sections of the United States and Canada was launched when 75 of the superintendents of sales agencies of the Curtis Publishing Company, of Philadelphia, assembled at the Hotel Traymore, Atlantic City, to hold their annual meeting.

The magazine salesmen discussed the plan to provide employment for all of the boys who sell the *Saturday Evening Post* who have reached an age when they feel that they must leave school and enter business. Fifty thousand of these boys are now employed as agents for the magazine in the larger cities of the country and 20,000 in the smaller towns. It is the intention of the company to recommend these boys, who have demonstrated their business alertness, to situations in whatever line of business they are fitted for.

Five hundred big business concerns, including virtually all of the establishments which do a national business, have signified their willingness to co-operate with the movement. They have agreed to give a preference, other things being equal, to the boy recommended by the Curtis Company and to see that he is given every opportunity to advance in his chosen profession. Not until he has shown his efficiency as a salesman for six months can the boy be admitted to the League of Curtis Salesmen, and it is only after he has passed through the grade of master salesman that he will receive the help of the organization in obtaining employment with one of the firms that have become interested in the scheme.

The organization will amount to a national employment bureau for boys, and will surpass the work of the government employment bureau of Germany in that it will continue to lend its aid to the boys who are "placed" through its efforts for a period of five years after positions are first found for them.

VOCATIONAL DEPARTMENT IN ALABAMA SCHOOLS

Representative W. C. Davis of Alabama has introduced in the house a bill to authorize the establishment of a vocational department in the elementary and high schools of that State. Provision is made in the measure for the teaching of practical

agriculture, mechanical trade and all other industrial arts and sciences.

The bill makes it optional with the various county boards of education as to whether or not such vocational courses of instructions shall be established within their respective jurisdiction.

The county boards of education are authorized to appropriate from the general fund of their county or municipality so much money as shall be necessary to carry out the provisions for vocational education in their districts.

An interesting feature of the bill provides that each pupil engaged in agriculture shall be required to produce for home consumption, or for market, products which will in value represent certain sums of money. For example, boys from 10 to 12 years of age will be required to produce products to the value of \$15; boys from 12 to 14, \$30; boys from 14 to 16, \$60, and boys over 16 years, \$80. Girls are also required to cultivate products of various values, girls over 16 years of age being required to produce \$30 worth of products.

THE GARY SYSTEM IN TROY

The Entire School System of this City Revised with Beneficial Results to Pupils and Teachers

Since the fire that destroyed one of the grammar schools of Troy, New York, there has been a great improvement, and that not by reason of building a new and better building, either, but by reorganizing the school work of the city on the Gary plan.

The day before the fire William Wirt, head of the Gary schools, had been one of a group of educators conferring with Superintendent Eldred and Dr. William Chandler Smith, vocational education director of the Troy schools. He was on his way home, but Messrs. Eldred and Smith wired for him to come back. He said, under the Gary plan, he could make room for the 500 children of the burned grammar school in the big central school building—already thought to be used to capacity.

"When the term opened," said Dr. Smith, "we had in the central school, not 800 regular pupils and a few hundred part time and evening students, but nearly 1,400 day students. Moreover, under the Wirt dual system, we found we had room for 1,800 to 2,000 children, giving them all a full programme of work, study and play. The wonderful thing about it was the

instant economy achieved, the per capita cost of operating being cut almost in two.

"The auditorium, for example," he continued, "one of the most expensive rooms in the building, had formerly been in use for about thirty minutes a day. The rest of the time it was empty, unproductive, earning nothing. Now it was a hive of industry all day long. Before the shops and the domestic science rooms were used only a few hours a day; now they were in constant use.

"It was the same with the gymnasium and the playground, all other departments, before working half time, now earning their living every minute of the day. Talk of efficiency, that building spells efficiency from basement to roof. It is an object lesson to the town.

"We employ no more teachers than before, nor do we work them any harder than before. We transferred several of the classroom teachers to auditorium and gymnasium service, and we assigned other teachers to special classes."

A LEADER IN PRACTICAL EDUCATION

(Pittsburgh Post)

The Pittsburgh idea of practical education was well expressed by a Philadelphia educator at the University of Pittsburgh the other day in an address to a class taking the summer training course for teachers. He emphasized that the chief concern in training the boys and girls in the high school should be for equipping them for their life work rather than for entering a college. While Pittsburgh affords every opportunity for higher education, and while it has courses in its high schools that fit students for college entrance, the chief aim of the public school system is to give the boys and girls an education that will meet the demands upon them in the practical world. It is recognized that the great majority of the pupils will go no further than the public schools, and that the education given them there must prepare them for the practical pursuits they will be obliged to take up instead of for the college life they will never enter. All of the visiting educators in the city this summer to address the teachers have talked in harmony with that idea, which has made such progress here. It was pointed out by the speaker that the high school, which is financed by the community, "owes the same debt to its students who will become artists, artisans, farmers, merchants and business men as it does to those who will practice medicine, law, dentistry, or any profession."

VAST EDUCATIONAL PROJECT PLANNED FOR DELAWARE

United States Experts, Aided by Leaders in State, will Make Educational Surveys of Commonwealth

With a view of making the citizenship of Delaware a model for other States to follow, the United States Bureau of Education has selected it as the survey field to carry out many new educational projects.

The Government will send a staff of probably 60 experts in various lines to Delaware to conduct the surveys, which may take several years to finish. United States Commissioner of Education, Dr. P. P. Claxton, is especially interested in the project and his experts will work in co-operation with the recently organized Delaware Co-operative Educational Association in carrying out the survey plans.

The work will be done without any cost whatever to the State. It is the greatest project that the educational department of the Federal Government has ever attempted, and is looked on as the greatest advantage that has ever come to any State from an educational viewpoint. After the plans have been perfected they will no doubt be inaugurated in other States. Commissioner Claxton selected Delaware for the survey field because of the many advantages that the State offered for this line of work.

The plan was first discussed between Commissioner Claxton, Dr. Charles A. Wagner, State Commissioner of Education, and Dr. Samuel C. Mitchell, president of Delaware College, some months ago. As a result of these talks a conference was called last spring of representatives of the various agencies of the State that would possibly be interested sufficiently to assist with the work. The conference was such a great success that the Delaware Co-operative Educational Association, with Professor Harry Hayward, head of the agricultural department of Delaware College, as president, was formed at once. Tentative plans were then made for this association to co-operate with the Government in carrying on the work. Since that time Professor Hayward, Dr. Wagner, President Mitchell and others have been working hard with the government representatives so as to get the main work started with the beginning of the next school year, and some of the work has actually been started.

Community Civics First Survey

One of the first pieces of work to be started will be under-

taken by Dr. Arthur W. Dunn and assistants from the Bureau of Education, who will spend the entire school year in Delaware demonstrating the plan of teaching community civics. This will mean the instruction in the public schools of the State of the pupils of all ages, but especially those above 12 years of age, not only in an understanding and appreciation of the form of State and national government and governmental activities, but also in all the civic and community activities that touch and shape the life of the citizen and community. Examples of topics to be included are local government, water supply, gas supply, electric supply and fire and police system. The pupils' relations to these and their dependence upon these community activities is to be studied, explained and made clear, so that, for instance, the waste of water from a spigot is seen in its true character, a needless waste of public resources. Dr. Dunn and his assistants will arrange, direct and oversee the work through the teachers in the schools.

Industrial Survey

Another important work that is being mapped out is an industrial survey. This will be in charge of Dr. William J. Bawden, of the Federal Bureau of Education. He will go to Delaware to meet the representatives of all agencies of the State interested in this particular project and discuss with them plans for the work. When the actual work is started in September Dr. Bawden will bring a staff of expert investigators with him. Some of the facts that it is proposed to learn by this survey are as follows: Age, nativity, conjugal conditions of workers, amount of schooling received by workers, working conditions, hours of labor, regularity of employment, wages, earnings and preferred age of entrance, provision for the training of the workers, provisions for instructions, evening schools, corresponding schools, and promotion to better positions, analysis of occupations, educational plans, kinds of schools and courses of study suggested by the inquiry.

Rural School Survey

Then next will come the rural school survey in which some of the greatest experts on rural school management in the country will be engaged. Dr. Fought, a government expert, will be in charge of the work. For years he has stood at the head on matters pertaining to the rural school. He will bring a staff of experts with him and it is the plan to visit every rural school

in Delaware. Data will be obtained as to the building, sanitary conditions, equipment, attendance, course of study, the playground, equipment of the teacher, amount of money spent in school district, amount appropriated to the district for school purposes by the State and amount raised by taxation, value of taxable property in the district and condition of roads leading to the schools.

The home environment of the rural child is another study that is to be taken up early in the fall. The government has experts trained in this particular line and in the study will seek to find out the environment of the child at the home.

SAYS AMERICA'S OPPORTUNITY IS TRAINING YOUTH

Dr. Davidson, of Pittsburgh, Talks in Favor of Industrial Education for Future Citizens of United States

"The Pittsburgh of the future must be noted for its perfection of the refined processes of manufacture, rather than simply mere great tonnage," Superintendent of Schools William M. Davidson told the newly started State class for training continuation school teachers.

"America's opportunity lies in training the youth of the land industrially, as practically all the great nations of Europe are now doing and have been doing," Dr. Davidson declared.

Vocational Training Essential

Without industrial training in its public schools, a modern nation will, in time, be outdistanced by competing nations, he said, pointing out that, taking the lead from Germany, all the larger countries, including Russia, are training in the public schools to make skilled workers, trying out vocational training plans, or creating industrial continuation schools in which the youth at work may continue schooling. He drew this distinction for such training in America, compared with the same thing in Germany and the other countries of Europe:

"We must not make machines out of our boys and girls in America. We don't want to encourage any system which produces a man who can make only one thing. All industrial and vocational training must be fused with the most liberal education. We need the worker trained so he has no equal in the world; but at the same time a man who, when he assembles with his family, may read the literature of the world, the newspapers of his day; be able to think clearly—and vote right."

EDUCATION IN THE UNITED STATES

**About 22,000,000 Enrolled in the Great Army of Learners
which is Led by a Staff of 700,000 Teachers**

By J. O. Knott,

of the United States Bureau of Education

There were about 22,000,000 persons enrolled in the educational institutions of the United States in 1914, according to the annual report of the United States Commissioner of Education, which has just been completed. Over 19,000,000 of these were in the elementary schools, 1,375,000 in secondary schools, public and private, and 216,000 in colleges and universities. Close to another 100,000 were in normal schools preparing to be teachers. In professional schools there were 67,000.

The teachers of this army numbered 700,000, of whom 566,000 were in the public schools. In point of growth the high school still presents the most impressive figures—the enrollment for 1914 was 84,000 over the previous year.

As nearly as can be estimated, the cost of education for the year was \$750,000,000. Figures show that 60 per cent of all the money spent in the United States in 1914 for education was spent for elementary schooling.

Rural Education Still Predominates

General and school population both remain predominantly rural. By the census estimates for 1913 46.3 per cent of the population was urban and 53.7 per cent rural, if the census definition of a city as anything over 2,500 be accepted. In population from 6 to 20 years of age the cities have 41.6 per cent of the total; the rural 58.4.

Statistics for 1914 emphasize the fact that private elementary schools in the United States are now confined almost entirely to church schools. The parish school system of the Roman Catholic Church in 1914 comprised 5,403 schools and 1,429,859 pupils—an increase of 147 schools and 69,098 pupils over 1913. The Lutheran parochial school system for 1914 reported 4,881 schools with 259,467 pupils—a decrease in schools and pupils.

Other religious bodies in the United States are in the main supporting elementary private schools only where public school facilities are not already available for all children of school age.

Higher Education Largely Denominational

Higher and secondary educational institutions still remain the stronghold of denominational education. Of 567 colleges and universities tabulated for 1914 in the annual report, 327 are listed under denominational control, and of 2,199 private high schools and academies reporting, 1,489 are under control of religious denominations. These secondary institutions are maintained by 28 different denominations, and have 8,762 instructors and 101,329 students.

The high school continues to grow surprisingly. There were 13,714 public and private high schools in 1914, with 1,373,661 students. The students increased 90,652 over the previous year and increased 100 per cent over the enrollment of 1902. The number of girls exceeded the number of boys in both public and private secondary schools in 1914, the proportion of girls being 56.03 per cent.

On the other hand, the reports show men outnumber women in colleges about 2 to 1.

The New Junior High School

The junior high school, defined tentatively as an "organization of grades 7 and 8 or 7 to 9, to provide by various means for individual differences, especially by an earlier introduction of pre-vocational work and of subjects usually taught in the high schools," was indorsed by all but one of the school surveys published during the year, and by various educational associations. That the movement of the junior high school has advanced from the stage of theory to that of practice is indicated by 168 cities claiming to have junior high schools. After all deductions are made there remain 57 cities where junior high schools are organized in unmistakable form.

Students in colleges, universities and technological schools in 1914 increased 14,262 over 1913. Of the Bureau of Education's list of 567 institutions (a decrease of 29 over the previous year) 93 of them only are controlled by States or municipalities.

How Higher Education is Supported

Benefactions to colleges and universities total \$26,670,017—something over \$2,000,000 more than in the year previous. Six institutions received benefactions in excess of a million dollars each, and forty-five universities, colleges and technological schools reported gifts amounting to more than \$100,000. In

the past seven years the largest increase in income has come through State and municipal appropriations, and the smallest from tuition and other fees. State and municipal appropriations grew from \$9,649,549 in 1908 to \$23,400,540 in 1914, while fees for tuition and other educational services increased from \$15,390,847 to \$22,504,529.

As a result of the vigorous campaign for higher standards waged during the past few years the number of "professional schools" has decreased materially. There was a falling off of three schools of theology, two law schools, eight schools of medicine, and three schools of pharmacy. On the other hand there was an increase in students in professional schools from 14,252 to 15,686. Practically all of this increase is reported from the schools of dentistry, showing the increasing interest in dental hygiene as part of the public programme for good health.

In 1914 there were 4,496 graduates in law, 4,048 in medicine, 2,290 in pharmacy, 2,270 in dentistry and only 1,886 in theology. Yet while the receipts by professional schools of law totalled only \$1,831,163, the receipts of schools of theology amounted to \$4,246,501. The schools of medicine report the greatest receipts, \$11,444,992.

Decrease in Medical Schools

There are now only seventeen medical schools that admit students on high school education or less. This is a notable change since 1904, when over half the world's supply of medical colleges was in the United States. There were then 162 colleges, with 28,142 students; there are now 100 colleges, with 16,940 students.

The Bureau of Education estimates that between 40,000 and 50,000 teachers began work in the fall of 1914 with at least a measure of professional preparation; but it is clear that the supply of professionally prepared teachers is not sufficient for the number of teaching positions that must be filled. The need is most keenly felt in the rural schools, where, according to a careful investigation during the year, not two-thirds of the teachers have any professional preparation.

"Teacher training," says the annual report, "has become almost a public function: as a private function it is carried on mainly in schools for kindergartens, schools for gymnasium instructors or in institutions for the training of denominational teachers."

Pressing Need for Rural Teachers

Public appropriation for normal schools totalled \$12,523,968 for the year, as compared with \$10,432,252 last year and \$2,212,952 a quarter of a century ago. The pressing need for teachers in the rural schools who will lead in the upbuilding of rural life and the failure of existing normal schools, for the most part, to meet this and other needs, have led to serious questioning of the existing provision for teacher training.

Vocational training as a national problem attracted attention through the report of the commission of Federal aid for vocational education, rendered in June, 1914. While the comprehensive bill drawn up by the commission was not acted upon by Congress, favorable action is expected eventually by the friends of the plan. Congress had already voted the Federal aid asked for in the Smith-Lever bill for agricultural extension education.

Little Progress in Vocational Training

The most serious problem met by those who sought to enlarge their facilities for vocational training has been that of finding teachers. It has been difficult to secure teachers who were proficient in the trade to be taught and at the same time with professional training or experience in teaching. Apparently the most satisfactory plan has been to take men who are expert in the trade and give them training as teachers. A number of experiments made during the year in training trade workers for teachers of vocations by means of evening classes have proved successful.

Chicago has, in connection with its regular school system, a well-organized system of vocational education through public secondary and evening schools. The majority of the teachers are practical men from the trades, the others being school men with college training in technical subjects but no trade experience.

In the girls' courses women with experience as milliners, dressmakers, managers of dining rooms and shop workers are in many cases in charge of classes in the high schools throughout the city. The night schools are taught largely by men from the trades. Special efforts have recently been put forth by means of home projects and otherwise to give a definite vocational bent to agriculture as taught in high schools. In both college and high school work there has been increased emphasis on the practical side of farming as opposed to "book agriculture."

The Problem of Vocational Guidance

In cities where investigations preparatory to the introduction of vocational training have been made, attention has been quite generally paid to the problem of vocational guidance. Philadelphia's new official is director of both vocational education and guidance.

Significant as the progress of the movement of vocational guidance is the taking over by the public schools in whole or in part of the function of vocational counselling. The vocational guidance movement in Boston, for example, has now extended to nearly all of the public schools. In Chicago the system of vocational advisers has become clearly identified with the administration of vocational training in the public schools.

Some indication of the spread of the vocational guidance idea may be had from a preliminary investigation recently made by the Bureau of Education. Of over 7,078 public high schools replying to inquiries sent out, 3,955 report that the principal or teachers give talks on different occupations and 2,290 high schools have outside speakers come in at times to describe different vocations.

Little if any real systematic attempt at guidance is reported. Even the teachers in the National Vocational Guidance Association, formed during the year, appear anxious lest the movement should become definitely fixed at its present point of development.

OPEN SCHOOL TO TRAIN TEACHERS

Experts in Trades Education Start Preparation for Continuation Feature of New Pennsylvania Law

The first step toward meeting the requirements of the Cox-Brumbaugh Child Labor Bill of Pennsylvania, the continuation school feature of which Superintendent of Schools Jacobs says will cost the Board of Education of Philadelphia approximately \$3,000,000, was taken recently, when the State opened a training school for teachers in the Trades School, Twelfth and Locust Streets.

Nearly 90 young men and women who seek positions as teachers in the continuation schools began work under the direction of William Ash, principal of the Trades School, who has been selected by the State Board of Education to head the training school in that city. It was first expected that only 60 teachers could be accommodated at the school, but it was found necessary to admit 90 teachers at a time for a four weeks' course.

By January 1st educational and industrial forces of the State of Pennsylvania will have to adjust themselves to the new conditions brought about by the passage of the Child Labor Bill. On that date 40,000 employed children between the ages of 14 and 16 years, 23,000 of whom are in Philadelphia, will have to attend the continuation schools eight hours a week. The law says that a child may work 51 hours a week, and that the eight hours' schooling must be included as part of the working time.

Employers May Have Own Schools

In some instances large employers of labor may establish schools which their employees may attend. In such cases schools must be approved by the Board of Education. It is expected that many such schools will be established and, consequently, the expenses of the Board of Education will be greatly reduced.

Philadelphia will need more than 300 teachers in the continuation classes. As soon as 90 teachers in the training school complete their four weeks' course, another 90 will take their places. Thus within five months the required number of teachers will have completed their course. Because a teacher enters the school that does not guarantee a position. Examinations will be given beginning in November and positions will be given according to the standings.

Mr. Ash said that there is a general misunderstanding as to the nature of the school. "It is not a trade or vocational school," he said, "but aims to train teachers to merge the school work with the industry in which the pupil is engaged."

Strong Factor for Labor Uplift

In the opinion of leading educators, says the *Philadelphia Record*, the continuation school will be a strong factor in the educational uplift of the laboring classes. Young girls and boys have heretofore left school at an early age to eke out a living in the industrial world. Now through the schools which they must attend it is believed that thousands who would have become social driftwood will develop into useful citizens.

"It has become a recognized fact," said Mr. Ash, "that the majority of children do not leave school because of economic necessity. They leave because they want spending money, better clothes, or because school does not interest them.

"The working children attending the school will receive a different sort of instruction from what they get when they attend regular grades. Every child's studies will be adapted to the trade

or occupation in which he is employed. Teachers in the training course will make many trips to factories and places of industry in order to get a background for the instruction they will have to give."

THE ADVANTAGE OF CO-OPERATIVE EFFORT

"You can't have your work up to date if you don't keep your mind up to date. You may be the most brilliant member of your profession or trade, but your intelligence can't possibly be as broad as that of everybody else engaged in the same pursuit."—*Herbert Kaufman*.

GENERAL EDUCATIONAL NOTES

The *Chicago Post*, in a double column editorial, asks, "Why not 'The Gary Plan' in the Chicago Public Schools?" Why not?

State Superintendent Harris recently gave extensive figures on education in Louisiana. The amount spent on education in the state is \$6,500,000 per year and should be at least \$12,000,000, he said. The greatest need is for better schools in the country. Although there were 17,000 to 18,000 students in the high schools last year there were only 1,200 graduates, he said, an unsatisfactory showing. Illiteracy is about 50 per cent of the negroes and 27 per cent of the whites. The predominant illiteracy among the adult population of seventeen Southern parishes makes the general percentages so high, he explained. There are 150,000 negro children out of school in the state, according to his report.

Seven hundred children of Dubuque, Iowa, taking advantage of the opportunities offered by the vacation schools turned their vacation time into a period of usefulness and healthful recreation.

"Vocational training is the most important industrial problem in this country," says Dr. C. P. Steinmetz, former president of The National Association of Corporation Schools. "The supply of artisans with broad training from Europe is now cut off, and the training of workmen in this country is of paramount interest. The superiority of America in the electrical industry over all other countries is due largely to educational development and to co-operation between the manufacturing companies and educational institutions."

There is a novel school in New York for janitresses which covers the first district, an area of 63 acres, in which 45,000 persons live, more than 700 to the acre. This congested district is bounded by Clinton and Pike streets and the East River, and the people jammed into the tenements mostly come from Russia and other European countries, where one must travel miles to greet

a neighbor. The big sanitary problems of a people so used to the open country have been studied scientifically by the health authorities, and it was found necessary to form a school of instruction for the janitresses. The classes have been well attended. On the first graduating day 50 janitresses were given diplomas.

Plans for the New York Training School for Community Centre Workers, have been completed and the school will open on Oct. 18. This newest professional school will be affiliated with the People's Institute, under the Chairmanship of Luther H. Gulick and the immediate direction of John Collier. The course of the school will take seven months for its completion, and for the first year will be limited to thirty-five students. At the end of this time it is expected that all of the graduates will find places waiting them as community centre leaders.

An innovation in the curriculum of the public schools of Rochester, N. Y., is being agitated, viz., to add a course in retail salesmanship for clerks. The Retail Merchants' Bureau of the Chamber of Commerce has approved the plan and promises to urge their clerks to attend if the course is established. The board of education of Rochester has signified its willingness to establish the course.

As an illustration of the popular demand for domestic science in the public schools of Louisiana State Superintendent T. H. Harris has compiled figures showing that within the last three years ninety-one such departments have been installed in country parishes aided by the State, forty in the city of New Orleans, and that the board of education at its next meeting will take up twenty-two requests for help in this work in country parishes.

The London, England, municipal school where girls may learn in six weeks to become grocers' clerks, has been successfully launched in the western part of the city, with a class of thirty. The girls will be trained in all the routine work of assistants in grocery and provision stores. Tuition is free, and pupils unable to support themselves during the six weeks' course are granted \$3 a week from the Prince of Wales Fund.

Continuation of the schools for education of nearly 2,000 boys and girls between the ages of 14 and 16 years, who are now employed in various factories and shops in Wilkes-Barre, Penn., will be a necessity when the Cox Child Labor Bill becomes effective next January.

Detroit school girls have gone in for custom dressmaking and they are making money at it. They are swamped with orders for house gowns, street gowns, fancy gowns; so many orders, in

fact, that they cannot fill all the requests for their services. What is the use of having two full months of summer vacation with nothing but pleasure to show for it, they say. Last summer the dressmaking classes were given a tryout. This season there is nothing experimental about them. The girls, coming from all parts of the city, have made them an established fact. So much interest has been shown in the work that this year a class in millinery is being organized. Already 30 girls have signed for this, many being students in the sewing class also.

Cleveland is also considering the introduction of the Wirt system into her public schools.

Association Superintendent of schools Garber of Philadelphia announced that his department would co-operate with the granges of Delaware, Bucks, Montgomery and Chester counties in an effort to have some of the school boys spend their vacation period on the farms. The idea is to give them a nominal compensation and in return have them taught the fundamental principles of farming. The response was immediate. Over 1,000 boys have filed applications and expressed an earnest desire to try the experiment.

The legislature of Maryland at the session of 1914 provided for an investigation of the common schools of the state. This work in the counties is now in progress, and is being done by agents of the general education board of the Rockefeller Foundation.

There are 17,000 public school teachers in Indiana. These teachers have charge of the training of considerably more than half a million children. The maintenance of the public school system costs the state \$7,000,000 a year.

Newark, N. J., will give the Wirt system a "tryout" in its public schools.

Pennsylvania's chief object in establishing six special summer schools for the training of teachers to take up work in continuation and vocational schools which are being established by the state board of education, is to get the teachers who will be needed under the new child labor law, as it has been found in preparing for the continuation schools, that few properly trained teachers for this special work were available. No tuition will be charged those attending summer schools. The state will pay all expenses. There will be courses in four academic subjects bearing on trade names, industrial geography, hygiene, relations of employer and employee, government, study of raw materials, manufacture and the like, and vocational subjects like arithmetic adapted to industries and industrial bookkeeping and shop sketching and drawing. •

Enrollment in the Vacation Schools of Detroit was this year double the attendance of last year.

The elements of agriculture will be put into the curriculum of the Detroit high schools as a regular course. Superintendent Chadsey believes conditions have arrived that make such a study necessary in a marked degree.

Hundreds of Austrians who have been wounded in the war are being taught trades in Vienna in a school established by wealthy men of that city.

Applications from more than one thousand boys who are anxious to spend their summer vacations on farms in nearby counties were received by the Department of Superintendence of the Philadelphia Board of Education, according to an announcement made by John P. Garber, Associate Superintendent.

The majority of those out of employment are usually unskilled workmen, the skilled man being in demand for his services. Illustrations of this are shown in a newspaper count of those who applied last winter for food at the Municipal Soup Kitchen in Detroit. Out of 1,000 people who applied, 800 had no trades. The other 200 were mainly seasonal skilled workmen such as tailors, painters, and plasterers. The few mechanics who applied were such that even in a busy season their services would not be in demand, as they were inefficient. Another illustration is shown in the 1914 Report of the Commissioner of Labor of Michigan. In his report he states that the Michigan Free Employment Bureau could not fill the demand for skilled workmen. He also states that they had a hard task getting jobs for the many unskilled workmen who applied for positions.

Five hundred and sixty-nine pupils graduated from the commercial courses in the public high schools in Chicago, according to William Bachrach, supervisor of commercial work in the high schools. About 350 of the pupils graduated in the stenographic course.

Upon recommendation of a special committee appointed by the regents, the University of Minnesota has accepted control of the Mayo Foundation for Medical Education and Research, established by the Drs. Mayo, whose surgical clinic at Rochester, Minn., is widely known. Another important center of medical research seems thus to be assured, with an endowment of \$1,500,000.

A new department designed to prepare specialists for the public health field was opened at New York University on July 15th. Lectures on public health and sanitation, leading to a new degree, Doctor of Public Health, are given. Two courses

are offered: the complete two-year course and the summer term—beginning July 15th—of six weeks, which will apply on the two years' work required for the degree.

To discover potential leaders and to train them for community work in school buildings, there has been organized the New York Training School for Community Center Workers, which will be open in October, with an enrollment limited to thirty-five. The offices of the school are at 70 Fifth Avenue. The school has been organized by The People's Institute of New York, but will be independently incorporated. Dr. Luther H. Gulick is chairman of the board of trustees, which includes Frederic C. Howe, Mrs. Paul Kennaday, Burdette G. Lewis and John Collier. On the Educational Committee are Earl Barnes, Edward T. Devine, John Dewey, William Heard Kilpatrick, Samuel McCune Lindsey and Albert Shiels. The staff of the school consists of John Collier, director; Mrs. J. Gilmore Drayton, executive secretary and adviser in field work, and Jeannette Ezekiels, supervisor of training.

More than one-fourth of the pupils in the elementary schools of Minneapolis are retarded, according to statistics compiled by D. H. Holbrook, director of the attendance and vocational guidance department in the public schools. Mr. Holbrook has found that out of a total of 44,040 pupils in the elementary schools last year, 11,358 were retarded; while 28,131 were in the grade they should be in, and 4,111 were above their grade. More boys were retarded than girls, the figures showed.

A committee to devise plans and means of introducing the subject of agriculture in the public schools of Washington County, Pa., has been named by County Superintendent L. R. Crumrine and A. G. Braden, president of the School Directors Association of Washington County.

There are 14,000 Chinese students in American schools and colleges, while only 300 Chinese students are enrolled in Japan.

Edwin R. Snyder, State Commissioner of Vocational Education, addressing delegates to the annual convention of California High School Teachers' Association, declared that the high schools should be conducted along less theoretical lines than those now employed and that students should be given more latitude in selecting their courses of study. "Unless the high schools are more practical," he said, "it soon will become impossible for them to retain any reasonable proportion of the boys and girls of their communities. Vocational training will do much to increase the high school population. Ten per cent of the young people of each community should be in the high schools. I believe that the compulsory age limit soon will be extended from sixteen to eighteen years."

"COMING MEETINGS"

The Executive Committee will meet in New York, Tuesday, September 7th. J. W. Fisk, Chairman of the Committee on Retail Selling, will probably hold the first meeting of his Committee in New York some time during September. J. W. L. Hale, Chairman of the Committee on Trade Apprenticeship Schools, is getting the work of his Committee in good shape and will probably have a meeting in Chicago some time during September. E. H. Fish, Chairman of the Committee on Public Education, is arranging to hold a meeting of this Committee in New York the latter part of September. Harry Tipper, Chairman of the Committee on Codification, is arranging to secure data covering the educational work done by the different member companies and his Committee will soon be in action.

The BULLETIN has not been advised when the other committees will meet, but as preliminary reports will be made to the Executive Committee at its meeting in New York on October 5th, it is probable that all of the committees will have met prior to that date.

Committees of The National Association of Corporation Schools 1915-16

Trade Apprenticeship Schools

J. W. L. Hale, *Chairman*,
The Pennsylvania Railroad Co.,
Altoona, Pa.
W. L. Chandler,
Dodge Manufacturing Co.,
Mishawaka, Indiana.
J. M. Larkin,
Fore River Shipbuilding Corporation,
Quincy, Mass.
F. W. Thomas,
Atchison, Topeka & Santa Fe Railway,
Topeka, Kansas.
Paul V. Farnsworth,
Cadillac Motor Car Co.,
Detroit, Mich.
Thomas G. Gray,
Southern Pacific Co.,
Sacramento, Cal.

Advertising, Selling and Distribution Schools

Dr. Lee Galloway, *Chairman*,
New York University,
New York, N. Y.
Professor M. T. Copeland,
Harvard Business School,
Cambridge, Mass.
O. B. Carson,
American Optical Co.,
Southbridge, Mass.

Special Training Schools

J. W. Dietz, *Chairman*,
Western Electric Co.,
Chicago, Ill.
J. E. Banks,
American Bridge Co.,
Ambridge, Pa.
T. E. Donnelley,
R. R. Donnelley & Sons Co.,
Chicago, Ill.
Fred R. Jenkins,
Commonwealth Edison Co.,
Chicago, Ill.
W. K. Page,
Addressograph Co.,
Chicago, Ill.

Retail Salesmanship

James W. Fisk, *Chairman*,
J. L. Hudson Dept. Store,
Detroit, Mich.
Miss Beulah Kennard,
105 West 40th Street,
New York, N. Y.
Miss Lilian Meyncke,
The Rike-Kumler Co.,
Dayton, Ohio.
H. G. Petermann,
United Cigar Stores Co.,
New York, N. Y.

Committees of The National Association of Corporation [Schools 1915-16

Advertising, Selling and Distribution Schools—*Continued.*

Frank L. Glynn,
Boardman Apprentice Shops,
New Haven, Conn.

Accounting and Office Work Schools

George B. Everitt, *Chairman*,
National Cloak and Suit Co.,
New York, N. Y.

Dr. Louis I. Dublin,
Metropolitan Life Insurance Co.,
New York, N. Y.

R. H. Puffer,
Larkin Co.,
Buffalo, N. Y.

H. A. Hopf, Phoenix Mutual Life Insurance Co.,
Hartford, Conn.

Frederick Uhl,
American Telephone & Telegraph Co.,
New York, N. Y.

Safety and Health

Sidney W. Ashe, *Chairman*,
General Electric Co.,
Pittsfield, Mass.

L. H. Burnett,
Carnegie Steel Co.,
Pittsburgh, Pa.

Arthur T. Morey,
Commonwealth Steel Co.,
St. Louis, Mo.

J. C. Robinson,
The New York Edison Co.,
New York, N. Y.

C. B. Auel,
Westinghouse Electric & Manufacturing Co.,
East Pittsburgh, Pa.

Allied Institutions

James A. Roosevelt, *Chairman*,
Roosevelt & Thompson,
New York, N. Y.

Norman Collyer,
Southern Pacific Railroad Co.,
San Francisco, Cal.

R. L. Cooley,
Supt. Continuation Schools,
Milwaukee, Wis.

Codification Committee

Harry Tipper, *Chairman*,
The Texas Co.,
New York, N. Y.

T. M. Ambler,
Brooklyn Union Gas Co.,
Brooklyn, N. Y.

A. Blumenthal,
Bing & Bing Construction Co., Inc.,
New York, N. Y.

E. M. Henderson,
Manhattan Rubber Manufacturing Co.,
Passaic, N. J.

K. W. Waterson,
American Telephone & Telegraph Co.,
New York, N. Y.

New Membership Committee not yet appointed.

Retail Salesmanship—*Continued.*

Mrs. Lucinda Prince,
264 Boylston Street,
Boston, Mass.

Employment Plans

C. R. Johnson, *Chairman*,
Goodyear Tire & Rubber Co.,
Akron, Ohio.

N. F. Dougherty,
The Pennsylvania Railroad Co.,
Philadelphia, Pa.

Philip J. Reilly,
Dennison Manufacturing Co.,
Framingham, Mass.

Edward B. Saunders,
Simonds Manufacturing Co.,
Fitchburg, Mass.

W. M. Skiff,
National Lamp Works, General Electric Co.,
Nela Park, Cleveland, Ohio.

Public Education

E. H. Fish, *Chairman*,
Norton & Norton Grinding Companies,
Worcester, Mass.

E. G. Allen,
Cass Technical High School,
Detroit, Mich.

Arthur E. Corbin,
Packard Motor Car Co.,
Detroit, Mich.

Arthur W. Earle,
Winchester Repeating Arms Co.,
New Haven, Conn.

Miss Harriet Fox,
Strawbridge & Clothier,
Philadelphia, Pa.

Vocational Guidance

Dr. Henry C. Metcalf, *Chairman*,
Tufts College,
Tufts, Mass.

C. R. Sturdevant,
American Steel & Wire Co.,
Worcester, Mass.

Albert C. Vinal,
American Telephone & Telegraph Co.,
New York, N. Y.

Committee on Nominations

John L. Conover, *Chairman*,
Public Service Corporation of New Jersey,
Newark, N. J.

N. F. Dougherty,
The Pennsylvania Railroad Co.,
Philadelphia, Pa.

H. W. Dunbar,
Norton Grinding Co.,
Worcester, Mass.

L. W. George,
Commonwealth Steel Co.,
St. Louis, Mo.

A. W. Soderberg,
Carnegie Steel Co.,
Munhall, Pa.

